

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A process for refining oil, with Use, in a gas production region, of a purified field gas G, comprising in which:
 - a) converting at least a fraction of G1 of said gas G ~~is converted~~ to obtain a stream of hydrogen (H_2);
 - b) supplying via an unheated pipeline or unheated oil tanker a conventional fluid transportable crude oil P1 with a pour point of 0°C or less, comprising a vacuum residue with a sulphur content of more than 1% by weight, ~~is selected and supplied via a unheated pipeline of unheated oil tanker;~~
 - c) treating said oil P1 ~~is treated~~ in a hydrocarbon treatment facility (I), ~~carried out~~ substantially without carbon discharge, ~~the treatment comprising by~~
 - at least one desulphurization ~~desulphurizing treatment step~~ by hydrotreatment (HDT, RHDT) or hydroconversion (HDC, RHDC) or hydrocracking (HDK) of at least a fraction of the oil P1, said fraction mainly comprising compounds with a boiling point of more than 343°C, ~~said step treatment in (I)~~ consuming at least a fraction of the hydrogen stream; H_2
 - ~~at least one step, which may be communal with or separate simultaneously or separately~~ to said desulphurizing treatment step, ~~for~~ reducing the quantity of vacuum residue included in the oil P1, by segregation of a part of the whole vacuum residue, optionally with conversion of a part of said vacuum residue, ~~in which~~ carrying out complete segregation of at least the asphaltenes of said vacuum residue ~~is carried out;~~
- so as to produce:
- at least one pre-refined oil P_a P_{Δ} comprising compounds derived from the desulphurizing treatment ~~step~~, said pre-refined oil P_a P_{Δ} being substantially free of asphaltenes, having a

sulphur content that is reduced by at least 50%, and a having a content of vacuum residue ~~content with a sulphur content of~~ more than 1% by weight sulfur ~~which is zero or~~ reduced by at least 15% with respect to the oil P1,

- and at least a segregated fraction comprising at least the major portion of the asphaltenes, optionally cracked and/or supplemented with other fractions from P1, in the form of a ~~liquid heavy fuel, or~~ a residual oil P_b which is liquid at ambient temperature ~~as an oil refinery feedstock intended to be refined in an oil refinery.~~

d) evacuating and said pre-refined oil P_A ~~P_A is evacuated~~ to an oil port as an oil refinery feedstock intended to be refined in an oil refinery which is distinct and distant from the facility (I).

2. (Currently Amended) The process ~~Use of a gas~~ according to Claim 1, in which said segregated fraction is said residual oil P_B which is liquid at ambient temperature as an oil refinery feedstock ~~intended to be refined in an oil refinery feedstock~~, P_B comprising at least five cuts of ~~cutes from the group formed by:~~ light naptha, heavy naptha, kerosene, gas oil, vacuum gas oil, and/or vacuum residue, and comprising at least 3% of its total weight in at least 5 of said cuts.
3. (Currently Amended) The process ~~Use of a gas~~ according to Claim 1, in which one of the two oils P_A, or P_B differs from the other by at least 15% in at least one of the following parameters: the percentage by weight of kerosene, the percentage by weight of diesel, or the percentage by weight of vacuum residue containing more than 1.25% of sulphur.
4. (Currently Amended) The process ~~Use of a gas~~ according to Claim 1, in which the oil fraction P_A boiling above 343°C is a desulphurized fraction with a sulphur

content of less than 1% by weight, derived from said desulphurizing treatment (HDC, HDT, HDK).

5. (Currently Amended) The process ~~Use of a gas~~ according to Claim 1, in which said treatment (C) comprises ~~comprise~~ at least one catalytic step, carried out over a solid supported hydrotreatment, hydroconversion or hydroconversion catalyst, for at least a fraction of the feed comprising compounds with a boiling point of more than 371°C.
6. (Currently Amended) the process ~~Use of a gas~~ according to Claim 1, in which:
- at least an atmospheric distillate, a vacuum distillate and a vacuum residue are produced by atmospheric distillation and vacuum distillation of the oil P1;
 - at least a portion of said vacuum residue is deasphalted to obtain a deasphalted oil and asphalt;
 - said desulphurizing treatment (HDC, HDT, HDK) is carried out on the vacuum distillate and deasphalted oil; separately or as a mixture, to obtain an effluent with a sulphur content of less than 1% by weight
 - said pre-refined oil P_A ~~which~~ is substantially free of asphaltenes and comprises no vacuum residue with a sulphur content of more than 1% by weight and is reconstituted from at least a portion of the effluents from said desulphurizing treatment and at least a portion of the atmospheric distillate.
7. (Currently Amended) The process ~~Use of gas~~ according to Claim 1, in which:
- at least an atmospheric distillate, a vacuum distillate and a vacuum residue are produced by atmospheric distillation and vacuum distillation of the oil P1;
 - at least a portion of said vacuum residue is deasphalted to obtain a deasphalted oil and asphalt;

- a residual oil P_B comprising at least the major portion of the asphalt obtained along with a limited quantity of relatively lighter fractions is produced so that the asphaltenes content of the vacuum residue of the oil P_B is greater than the vacuum residue of the oil P₁ by at least 20%, ~~said content preferably being greater than 12% by weight or even than 14% by weight.~~
- 8. (Currently Amended) The process ~~Use of a gas~~ according to Claim 7, in which said relatively lighter fractions are derived from the treatment of oil P₁ and comprise a portion of the effluents from said desulphurizing treatment.
- 9. (Currently Amended) The process ~~Use of a gas~~ according to Claim 7, in which said relatively lighter fractions are principally composed of crude oil.
- 10. (Currently Amended) The process ~~Use of a gas~~ according to Claim 1, in which:
 - at least an atmospheric distillate, a vacuum distillate and a vacuum residue are produced by atmospheric distillation and vacuum distillation fo the oil P₁;
 - the vacuum residue is converted by catalytic hydroconversion (RHDC), and one or more fractions from the oil P₁ is optionally added to the effluents from said catalytic hydroconversion to produce said residual oil P_{B₂}
- 11. (Currently Amended) The process ~~Use of a gas~~ according to ~~one of Claims 1 to 6~~ Claim 1, in which:
 - at least an atmospheric distillate and an atmospheric residue is produced by atmospheric distillation of the oil P₁;
 - the atmospheric residue is converted to catalytic hydroconversion (RHDC);

- at least a portion of the effluents from said catalytic hydroconversion is fractionated into one or more non-residual fractions to form the refined oil P_A by mixing, after adding at least a portion of said atmospheric distillate, optionally desulphurized, and adding the complementary portion of the effluents from the treatment of the oil P_1 to produce the residual oil P_{B_2}
12. (Currently Amended) The process ~~Use of a gas~~ according to Claim 1, in which no combustion nor gasification nor evacuation of asphalt, nor coke forming process is carried out, and in which the liquid yield is over 97% by weight.
13. (Currently Amended) The process ~~Use of a gas~~ according to Claim 1, in which:
- at least an atmospheric distillate, a vacuum distillate and a vacuum residue is produced by atmospheric distillation and vacuum distillation of the oil P_1 ;
 - said residue is deasphalted to obtain a deasphalted oil and asphalt;
 - said desulphurizing treatment (HDC, HDT, HDK) is carried out on the vacuum distillate and deasphalted oil, used alone or as a mixture, to obtain an effluent having a sulphur content of less than 1% by weight;
 - said pre-refined oil P_A ~~which~~ is substantially free of asphaltenes and comprises no vacuum residue with a sulphur content of more than 1% by weight and is reconstituted from at least the major portion of the effluents from said desulphurizing treatment and from atmospheric distillation;
 - the major portion ~~or, preferably, all~~ of the asphalt, ~~preferably fluxed~~, is burned as a fuel for facility (I) and/or for a power station and/or for a seawater desalination plant.
14. (Currently Amended) The process ~~Use of a gas~~ according to Claim 1, in which at least a portion of ~~the~~ CO_2 co-produced during conversion of the gas G_1 to hydrogen is recovered and said CO_2 is injected underground into the gas production region close to the facility (I).

15. (Currently Amended) The process ~~Use of a gas~~ according to Claim 14, in which the CO₂ is injected into an oil and/or gas field to sequester said CO₂ and/or to carry out assisted oil recovery.\
16. (Currently Amended) The process ~~Use of a gas~~ according to Claim 6, in which ~~the~~ CO₂ co-produced during conversion of gas G1 to hydrogen is injected into an oil field, for example a depleted field to carry out assisted oil recovery.
17. (Currently Amended) A pre-refined ~~Pre-refined~~ oil P_A produced by the process ~~gas use~~ according to Claim 1.
18. (Currently Amended) A residual ~~Residual~~ oil P_B produced by the process ~~gas use~~ according to Claim 1.
19. (New) The process according to claim 1, further comprising evacuating said pre-refined oil P_A to an oil port as an oil refinery feedstock intended to be refined in an oil refinery which is distinct and distant from the facility (I).
20. (New) The process according to claim 1 wherein P_A contains zero vacuum residue having a sulfur content of more than 1%.